

# EUROPEAN PATENT OFFICE

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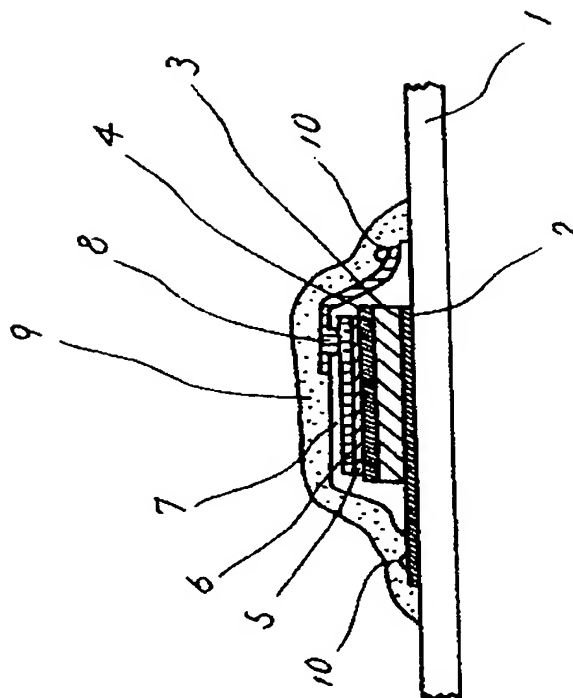
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APPLICANT : HITACHI LTD;

INVENTOR : KUDO TETSUICHI;

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TITLE : THIN FILM LITHIUM BATTERY



ABSTRACT : PURPOSE: To provide a thin film lithium battery having a long storage life and stabilized performance by covering whole thin film with a protect film such as silicon nitride or silicon oxide and sealing it with resin film thereon.

CONSTITUTION: An aluminium film 2 as positive current collector, a positive film 3 comprising titanium disulfide, a solid electrolyte film 4, a lithium metal film 5 as negative active material, and a nickel film 6 as negative current collector are stacked in order on a silicon substrate 1. A silicon film 7 is deposited thereon by sputtering, then a nickel film 8 is vacuum-deposited, and whole battery elements are sealed with epoxy resin. By protecting whole battery forming materials with  $\text{Si}_3\text{N}_4$  film and sealing with epoxy resin thereon, a thin film lithium battery having long stabilized performance and life is formed.

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